

17W

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date set forth below as First Class Mail in an envelope addressed to: Commissioner for Patents, P O Box 1450, Alexandria, VA 22313-1450.

Date of Signature and Deposit: June 10, 2004

  
Sara D. Vinarov

PATENT



THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Michael M. Cox  
Shelley L. Lusetti  
Aimee L. Egglar  
Nami Haruta

Date: June 10, 2004

Serial No.: 10/733,782

Group Art Unit: 1632

Filed: 12/11/2003

Examiner:

Title: RecA MUTANTS

File No.: 960296.99501

INFORMATION DISCLOSURE STATEMENT


Commissioner for Patents  
P O Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Enclosed is a completed Form PTO-1449 listing documents that the applicants in the above-identified application wish to bring to the attention of the Examiner for consideration in connection with the examination on the merits of this application.

No fee is believed due in connection with this submission. However, if a fee is due, please charge the fee to Deposit Account No. 17-0055.

Respectfully submitted,

  
Sara D. Vinarov  
Reg. No.: 48,524  
Attorney for Applicants  
QUARLES & BRADY LLP  
P.O. Box 2113  
Madison, WI 53701

TEL 608/251-5000  
FAX 608/251-9166



Express Mail No.

PTO/SB/17 (10-03)

Approved for use through 07/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ ) 0.00

**Complete if Known**

Application Number	10/733,782
Filing Date	12/11/2003
First Named Inventor	Michael M. Cox
Examiner Name	
Art Unit	1632
Attorney Docket No.	960296.99501

**METHOD OF PAYMENT (check all that apply)**☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:

Deposit Account Number	17-0055
Deposit Account Name	Quarles & Brady LLP

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
SUBTOTAL (1)					(\$ ) 0.00

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

	Extra Claims	Fee from below	Fee Paid
Total Claims	-20** =	X	0.00
Independent Claims	-3*** =	X	0.00
Multiple Dependent			

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent
SUBTOTAL (2)				(\$ ) 0.00

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ ) 0.00

**SUBMITTED BY**

Name (Print/Type)	Sara D. Vinarov	Registration No. (Attorney/Agent)	48,524	Telephone	608/251-5000
Signature		Date	June 10, 2004		

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.

**SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

377587

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Complete if Known</b>			
		Application Number	10/733,782		
		Filing Date	12/11/2003		
		First Named Inventor	Michael M. Cox		
		Art Unit	1632		
		Examiner Name			
Sheet	1	of	2	Attorney Docket Number	960296.99501

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Ennis, D.G., et al., "Analysis of recA mutants with altered SOS functions," (1995) Mutat. Res. 336:39-48	
		Knight, K.L., et al., "Identification of the Amino Acid Substitutions in Two Mutant Forms of the recA Protein from Escherichia coli: recA441 and recA629*," (1984) J. Biol. Chem. 259:11279-11283	
		Lavery, P.E., et al., "Biochemical Basis of the Constitutive Repressor Cleavage Activity of recA730 Protein," (1992) J. of Biol. Chem. 267:20648-20658	
		Lusetti, S.L., et al., "C-terminal Deletions of the Escherichia coli RecA Protein," (2003) J. Biol. Chem. 278:16372-16380	
		Lusetti, S.L., et al., "Magnesium Ion-dependent Activation of the RecA Protein Involves the C Terminus," (2003) J. Biol. Chem. 278:16381-16388	
		Madiraju, M.V., et al., "Properties of a Mutant recA-Encoded Protein Reveal a Possible Role for Escherichia coli recF-Encoded Protein in Genetic Recombination," (1988) Proc. Natl. Acad. Sci. U.S.A. 85:6592-6596	
		Madiraju, M.V., et al., "Enzymatic Properties of the RecA803 Protein, a Partial Suppressor of recF Mutations," (1992) Biochemistry 31:10529-10535	
		Shan, Q., et al., "DNA Strand Exchange Promoted by RecA K72R," (1996) J. Biol. Chem. 271:5712-5724	
		Tateishi, S., et al., "C-terminal Truncated Escherichia coli RecA Protein RecA5327 Has Enhanced Binding Affinities to Single- and Double-stranded DNAs," (1992) J. Mol. Biol. 223:115-129	
		Thomas, A., et al., "Control of recA dependent activities in Escherichia coli: a possible role for the recF product," (1983) J. Gen. Microbiol. 129:681-686	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.  
1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.  
This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/733,782
		Filing Date	12/11/2003
		First Named Inventor	Michael M. Cox
		Art Unit	1632
		Examiner Name	
Sheet 2	of 2	Attorney Docket Number	960296.99501

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Volkert, M.R., et al., "Two-Component Suppression of recF143 by recA441 in Escherichia coli K-12," (1984) J. Bact. 160:702-705	
		Wang, T.C., et al., "recA (Srf) Suppression of recF Deficiency in the Postreplication Repair of UV-Irradiated Escherichia coli K-12," (1986) J. Bact. 168:940-946	
		Wang, T.C., et al., "Cloning and preliminary characterization of srf-2020 and srf-801, the recF partial suppressor mutations which map in recA of Escherichia coli K-12," (1991) Biochimie 73:335-340	
		Wang, T.C., et al., "Cosuppression of recF, recR and recO mutations by mutant recA alleles in Escherichia coli cells," (1993) Mutat. Res. 294:157-166	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.  
 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.  
 This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.